



C7orf31 (F-7): sc-515544

BACKGROUND

Chromosome 7 is about 158 million bases long, encodes over 1000 genes and makes up about 5% of the human genome. Chromosome 7 has been linked to Osteogenesis imperfecta, Pendred syndrome, Lissencephaly, Citrullinemia and Shwachman-Diamond syndrome. The deletion of a portion of the q arm of chromosome 7 is associated with Williams-Beuren syndrome, a condition characterized by mild mental retardation, an unusual comfort and friendliness with strangers and an elfin appearance. Deletions of portions of the q arm of chromosome 7 are also seen in a number of myeloid disorders including cases of acute myelogenous leukemia and myelodysplasia. The C7orf31 gene product has been provisionally designated C7orf31 pending further characterization.

REFERENCES

1. Tsipouras, P., et al. 1983. Restriction fragment length polymorphism associated with the pro $\alpha 2(I)$ gene of human type I procollagen. Application to a family with an autosomal dominant form of osteogenesis imperfecta. *J. Clin. Invest.* 72: 1262-1267.
2. Liang, H., et al. 1998. Molecular anatomy of chromosome 7q deletions in myeloid neoplasms: evidence for multiple critical loci. *Proc. Natl. Acad. Sci. USA* 95: 3781-3785.
3. Hillier, L.W., et al. 2003. The DNA sequence of human chromosome 7. *Nature* 424: 157-164.
4. Eckert, M.A., et al. 2006. The neurobiology of Williams syndrome: cascading influences of visual system impairment? *Cell. Mol. Life Sci.* 63: 1867-1875.
5. Osborne, L.R., et al. 2006. Williams-Beuren syndrome diagnosis using fluorescence *in situ* hybridization. *Methods Mol. Med.* 126: 113-128.
6. Reiner, O., et al. 2006. Lissencephaly 1 linking to multiple diseases: mental retardation, neurodegeneration, schizophrenia, male sterility, and more. *Neuromolecular Med.* 8: 547-565.

CHROMOSOMAL LOCATION

Genetic locus: C7orf31 (human) mapping to 7p15.3.

SOURCE

C7orf31 (F-7) is a mouse monoclonal antibody raised against amino acids 217-508 mapping within an internal region of C7orf31 of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

C7orf31 (F-7) is available conjugated to agarose (sc-515544 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515544 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515544 PE), fluorescein (sc-515544 FITC), Alexa Fluor® 488 (sc-515544 AF488), Alexa Fluor® 546 (sc-515544 AF546), Alexa Fluor® 594 (sc-515544 AF594) or Alexa Fluor® 647 (sc-515544 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515544 AF680) or Alexa Fluor® 790 (sc-515544 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

APPLICATIONS

C7orf31 (F-7) is recommended for detection of C7orf31 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for C7orf31 siRNA (h): sc-89748, C7orf31 shRNA Plasmid (h): sc-89748-SH and C7orf31 shRNA (h) Lentiviral Particles: sc-89748-V.

Molecular Weight of C7orf31: 68 kDa.

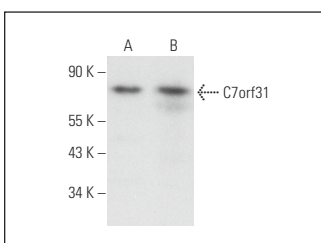
Positive Controls: RPMI2650 whole cell lysate: sc-364192 or human testis extract: sc-363781.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:

- 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.
- 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).
- 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



C7orf31 (F-7): sc-515544. Western blot analysis of C7orf31 expression in RPMI2650 whole cell lysate (A) and human testis tissue extract (B).

SELECT PRODUCT CITATIONS

1. Liu, T.T., et al. 2022. Atypical E3 ligase ZFP91 promotes small-molecule-induced E2F2 transcription factor degradation for cancer therapy. *EBioMedicine* 86: 104353.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.